

REMARKS

Prior to the present amendment, claims 1-53 were pending and claims 54-265 were cancelled without prejudice or disclaimer. By this amendment, Claim 1 has been amended to narrow the scope of the claimed microfluidic manipulator. Claim 1 is further amended to include the optional components of a power source and a means for selection of a thermal element. These components were already optional in previously presented dependent claims 4 and 13, hence no new search should be necessitated by this amendment. Claims 4 and 13 are amended solely for grammatical reasons and to correct an inadvertent error. It is respectfully requested that the amendments presented herein be entered, as Applicants believe that the currently amended claims patentably define over the prior art, and that in the event the case is not allowed, the claims will be in better form for Appeal. No new matter is entered into the case by the present amendment. Accordingly, claims 1-53 are currently under examination.

Rejection under 35 U.S.C. 102(b) and 35 U.S.C 103(a)

In the Office Action, claims 1-13, 18-20, 24, 28, 35, 38 and 41-51 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 6,130,098 to Handique et al. ("Handique"). Claims 14-17, 21-23, 25-34, 36-37, 39-40, and 52-53 are rejected under 35 U.S.C. §103(a) as allegedly obvious over Handique.

Applicants have amended Claim 1 to provide that the manipulator be devoid of micro-channels that limit movement of the fluid to a predefined route. Accordingly, activation of the thermal elements alone causes the fluid to move on the surface of the manipulator in a desired path. Support for the amendment to claim 1 can be found in the specification as originally filed, see *inter alia*, page 1, lines 28-31 and the figures 1-4 and 30-33. No new matter is entered into the case by the amendment.

The apparatus taught and disclosed in Handique requires an enclosed channel for moving fluid in a desired direction. The enclosed channel contains side walls which confine or limit the movement of the fluid to a predefined path. Thus, the manipulator of

Handique is not devoid of micro-channels as required by Claim 1 of the present application. There is no teaching, suggestion, or disclosure in Handique of a surface for movement of fluid on the surface in the absence of the micro-channels. In other words, applicants' invention is complete and operational without micro-channels, whereas the Handique apparatus requires micro-channels for operability.

Handique fails to teach, suggest, or disclose the invention of Claim 1, as amended, that provides a microfluidic manipulator that consists of a surface and thermal elements wherein the manipulator is devoid of micro-channels. Hence, Claim 1 is not anticipated or obvious over Handique.

Claims 2-53 depend from claim 1 and provide additional important limitations. Claims 2-53 are patentable over Handique for the same reasons set forth above that Claim 1 is patentable over this reference. Accordingly, applicants respectfully request that the rejections of the claims under 35 U.S.C. 102(b) and 103(a) over Handique be reconsidered and withdrawn.

In view of the above amendments and remarks, allowance of the pending claims is earnestly requested. If the examiner has any questions or concerns regarding this amendment, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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